

Repeated arson: Data from criminal records

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Received 17 October 1997; received in revised form 14 December 1997; accepted 29 January 1999

Abstract

The criminal careers of all arsonists convicted in former West-Germany between 1983 and 1985 who were found not to be responsible due to diminished responsibility for psychiatric reasons and a random sample (every third) of all criminally liable arsonists during the same period of time were followed up until 1994 by means of their trial records. Reappearance before the court for arson did not differ between the groups. When subjects are grouped by the additional occurrence of crimes other than arson, however, arsonists with diminished responsibility are the most problematic group: In comparison with all other subgroups, the arsonists who were partly responsible who did not commit any crimes other than arson showed the highest number of fire-setting incidents. Among the arsonists who committed other crimes as well, arsonists with diminished responsibility had the highest number of additional offences. © 1999 Elsevier Science Ireland Ltd. All rights reserved.

Keywords: Arson; Fire-setting; Pyromania; Forensic Psychiatry

1. Introduction

Willful fire-setting is a crime resulting in major property losses and death. There have been major increases in arson in both the United States and in Europe in recent years [1]. Former reviews [2,3] of the general psychological characteristics of arsonists state that contradictory conclusions in different articles are quite common. More recent reviews [4,5] focus mainly on pathological fire-setters and empirical studies indicate that mentally disordered individuals [6] and psychiatric patients [7] pose an increased risk for fire-setting behaviour. The increasing arson trend all over the world seems to become ‘a

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real challenge to psychiatry' [8]. In particular, the task of forming an expert psychiatric prognosis in court on future fire-setting behaviour is difficult, given the lack of sound empirical data regarding fire-setting recidivism and the severity and danger of arson. For example, attempts to predict this risk for a population of psychiatric patients [9] have yielded disappointing results. With the exception of a study of 83 arsonists in England and Wales [10], all previous studies of arsonists were based upon samples drawn either from psychiatric hospitals [9,11], from prisons [12,13] or from pre-trial psychiatric expert assessments [14,15]. A consistent finding of all of these studies was the rarity of the diagnosis of pyromania. With the exception of the study from England and Wales [10], none of these studies are representative of arsonists appearing before the courts.

In view of the increasing arson trend, criminal courts throughout the world demand that forensic psychiatrists offer opinions about the dangerousness of arsonists. The focus in our study is on arsonists appearing before the courts. The purpose of our study was to gain at least a rough overview of whether one can identify subgroups of more or less dangerous arsonists. These subgroups should be defined according to legal terms. With this aim in mind, the number of fire-setting incidents in a representative sample of arsonists appearing before the courts was evaluated by means of their criminal records.

2. Materials and methods

In Germany, records are kept for all trials by the Federal Central Register. In this register, all offences of each delinquent are noted and whether the offender the accused was criminally liable or not is documented. According to German law, a defendant can be found not responsible, diminished responsible or fully responsible for psychiatric reasons. These categories are mutually exclusive. The files do not contain psychiatric diagnoses. Since the files contain personal data, access to them is restricted to the legal system only. In a complex legal procedure, disclosure of these data was obtained for research purposes. In August 1994, the office of the Federal Central Register allowed us access to the following material: All records of individuals convicted of arson between the years 1983 and 1985 who were found not to be responsible for psychiatric reasons ($n=186$); all records of convicted arsonists during the same period of time who were found to have diminished responsibility for psychiatric reasons ($n=97$); a random sample (every third person) of all arsonists who were fully responsible for their actions between 1983 and 1985 ($n=187$). The records contain all convictions of the individual prior to the time of the index offence 1983–1985 and up to the end of the observation period, i.e. 1994. Hence, our inclusion criterion for the study was at least one conviction for arson between 1983 and 1985 regardless of other convictions. The criminal records of individuals included were followed up until August 1994.

The purpose of our study was to gain information on whether or not there are, in legal terms, defined subgroups of arsonists that may have an increased risk of repeated fire-setting. In the concept of pyromania, the exclusive behaviour of fire-setting is the focus of attention. Thus, we classify the arsonists of our sample by the additional occurrence of crimes other than arson ('mixed' vs. 'pure' arsonists).

Summing up, we assume that the number of fire-setting incidents depends on the degree of criminal liability of the offender and whether or not there is additional

criminality associated with crimes other than arson. Since we expect distributions deviating from normality, we tested the hypothesis by a nonparametric two-way analysis of variance. Single comparisons were carried out on the basis of Mann-Whitney U tests.

3. Results

In the entire study sample (records of 470 arsonists from the Federal Central Register), all trials were divided into types according to the nature and the number of offences. Up to the end of the observation period in August 1994, further convictions for arson occurred in 16 (9%) out of the 186 arsonists who were found not to be responsible at the time of the index arson, i.e. 1983–1985, in ten (10%) out of the 97 arsonists who had diminished responsibility, and in seven (4%) out of the 187 who were fully responsible for their actions. These rates were not significantly different ($p=0.066$; chi squared test). When subjects are grouped by the occurrence of crimes other than arson during the observation period ('mixed' vs. 'pure' arsonists), among the 186 offenders who were found not to be responsible for psychiatric reasons, 97 had only been on trial for arson and had not committed any other crime. Of the 97 delinquents who were partly responsible for their actions, 24 had not committed other crimes, and among the 187 subjects who were fully responsible for their actions, 36 were 'pure arsonists', without committing other crimes. The sample characteristics are shown in Table 1.

The number of fire-setting incidents caused by these different groups of arsonists are listed in Table 2.

Individuals who were found to be partly responsible at the time of the index offence, in 1983–1985, set the highest number of fires. Their total number of fire-setting incidents differed significantly from the numbers of fires set by 'pure' arsonists who were found not to be responsible ($p=0.000$) and those who were fully responsible ($p=0.001$) for their actions. The numbers also differed significantly from the numbers of fires set by arsonists who also committed crimes other than arson but who had diminished responsibility ($p=0.015$) and those who were fully responsible for their actions ($p=0.012$). The comparison between arsonists who committed other crimes as

Table 1
Sample characteristics of arsonists grouped by criminal liability and additional criminality

Additional criminality	Criminal liability		
	Not responsible	Fully responsible	Partly responsible
Additional crimes other than arson	$n=89$, 13 female age: $\bar{x}=32$, SD=11	$n=151$, 7 female age: $\bar{x}=28$, SD=9	$n=73$, 4 female age: $\bar{x}=30$, SD=9
no additional crimes other than arson	$n=97$, 24 female age: $\bar{x}=37$, SD=16	$n=36$, 6 female age: $\bar{x}=35$, SD=12	$n=24$, 6 female age: $\bar{x}=30$, SD=11

^a n =total number.

^b \bar{x} =arithmetic mean.

^c SD=standard deviation.

Table 2

Number of fire-setting incidents of arsonists grouped by criminal liability and additional criminality

Additional criminality	Criminal liability		
	Not responsible	Fully responsible	Partly responsible
Additional crimes other than arson	$\bar{x}=1.87$ SD=1.72 M=1	$\bar{x}=1.64$ SD=1.41 M=1	$\bar{x}=1.64$ SD=1.42 M=1
No additional crimes other than arson	$\bar{x}=1.26$ SD=0.60 M=1	$\bar{x}=1.28$ SD=0.68 M=1	$\bar{x}=3.04$ SD=3.74 M=1.5

^a \bar{x} =arithmetic mean.^b SD=standard deviation.^c M=median.

well and those who were found not to be responsible at the index time period and ‘pure’ arsonists who had diminished responsibility showed a trend towards more fire-setting incidents among the latter ($p=0.060$). Correspondingly, among all arsonists who committed crimes other than arson, individuals who were found to be partly responsible committed the highest number of offences ($\bar{x}=6.82$; SD=4.95; median=5), followed by those who were deemed not responsible for their actions ($\bar{x}=5.38$; SD=4.95; median=4) and those who were fully responsible ($\bar{x}=5.20$; SD=3.79; median=4). The difference between the number of offences committed was statistically significant between arsonists with diminished responsibility and those who were fully responsible ($p=0.019$) and those who were not responsible ($p=0.012$). Arsonists who also committed crimes other than arson and who were found to either be not responsible or fully responsible for their actions did not differ from each other with regard to the number of offences they committed ($p=0.933$).

4. Discussion

Obviously, subjects found to be of diminished responsibility for psychiatric reasons are the most problematic group among all of the arsonists in the sample. If all arsonists are grouped by criminal liability and the additional occurrence of crimes other than arson, subjects who were partly responsible and who did not commit crimes other than arson had the highest number of fire-setting incidents. In Germany, individuals suffering from psychosis, organic brain disease or severe mental retardation usually obtain exculpation from criminal liability. We therefore assume that these disorders are quite common among the arsonists who were found not to be responsible for psychiatric reasons. Subjects with diminished responsibility, however, are not likely to suffer from these disorders. Previous studies of arsonists remanded for psychiatric examination revealed that personality disorders were the most common diagnoses among arsonists of

diminished responsibility and that the diagnosis of psychosis almost always was found among arsonists who were not responsible for psychiatric reasons [16,17]. Studies of adult arsonists who had been under forensic psychiatric pre-trial examination in Germany [18] and Austria [19] yielded similar results and emphasize that many arsonists who obtain forensic psychiatric examination suffer from personality disorders.

In these studies, in the forensic psychiatric examination, many arsonists were diagnosed as alcoholics [16–19]. In our sample, the subgroup of arsonists with partial responsibility who did not commit crimes other than arson but caused the highest number of fire-setting incidents did not seem to be prone to alcoholism: In Germany, the courts can order therapy for criminal substance abusers in forensic psychiatric abuse units and any therapy ordered by the court is noted in the trial record. However, of the ‘pure’ arsonists with diminished responsibility in our sample, no one had to undergo substance-abuse treatment. In contrast, four of the ‘pure’ arsonists who were not responsible and one of the ‘pure’ arsonists who was deemed fully responsible were sent to forensic psychiatric abuse units by the courts. Of course, these data are limited to abuse as a chronic condition and the influence of acute intoxication remains unknown.

If we consider the arsonists who also commit crimes other than arson, the delinquents with diminished responsibility were the most problematic subgroup again. On the one hand, they do not differ from the subjects deemed not responsible or fully responsible with respect to the number of fire-setting incidents. On the other hand, however, they committed significantly more crimes other than arson compared with arsonists in the other two categories, i.e. fully responsible and not responsible. We may therefore assume that many individuals suffering from psychopathy in the sense of antisocial personality disorder can be found in this subgroup. Persons with antisocial personality disorder are well known to show the highest criminal relapse rates [20,21].

The following preliminary conclusions can be drawn from our sample: Out of a population of 60 million, within three years, 844 individuals who were convicted of arson appeared before the courts. Among these, 566 (66%) were judged to be criminal liable, 186 (22%) were found to be not responsible for psychiatric reasons, and 97 (9%) showed a diminished responsibility for psychiatric reasons. Within the following ten years, seven (4%) of those who were fully responsible, 16 (9%) of those deemed not responsible and ten (10%) of the those with diminished responsibility were reconvicted of arson. When subjects are grouped by the occurrence of additional crimes other than arson, arsonists with diminished responsibility but who did not commit any crimes other than arson (a quarter of the those with diminished responsibility) carried out the highest number of fire-setting incidents. If individuals suffering from pyromania do exist in the sample, they should be hidden among these subjects.

The number of fire-setting incidents among subjects who were found to be partly responsible for their action and who committed additional crimes other than arson does not differ significantly from those of the other subgroups with additional criminality. However, the arsonists found to be partly responsible and who committed additional crimes other than arson committed significantly more offences in total than the other subgroups with additional criminality. Hence, many individuals suffering from antisocial personality disorder may be placed in this subgroup.

Acknowledgements

The authors thank Dr. Roberto Viviani for his critique and comments of the manuscript.

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